DIRECT TESTIMONY OF
MICHAEL D. SHINN
ON BEHALF OF
DOMINION ENERGY SOUTH CAROLINA, INC.
DOCKET NO. 2022-2-E

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND CURRENT POSITION.

A. My name is Michael D. Shinn, and my business address is 400 Otarre Parkway, Cayce, South Carolina 29033. I am currently employed by Dominion Energy Services, Inc as Manager - Fuel Origination. I am responsible for managing the Fuel Procurement and Asset Management Department ("Fuel Department") for Dominion Energy South Carolina ("DESC" or "Company").

Q. PLEASE BRIEFLY SUMMARIZE YOUR DUTIES WITH DOMINION ENERGY SOUTH CAROLINA, INC.

A. My responsibilities include managing the purchase and delivery of coal, No. 2 fuel oil, limestone, lime, and ammonia on behalf of the Company and as an agent for South Carolina Generating Company ("GENCO"). My department expanded its responsibilities by assuming the procurement of pebble lime for Cope and ammonia products for all the power plants from corporate purchasing in 2021.

Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND AND YOUR BUSINESS EXPERIENCE.

A. I earned a Bachelor of Science Degree in Mechanical Engineering from the University of South Carolina in Columbia, South Carolina, in 1995. While in college, I was a student intern in the Fossil Hydro Power Plant Performance Group for five years. Since graduation, I have held various positions within the Fuel Department, including managing rail transportation and delivery, spot coal purchasing, coal quality management, synthetic fuel optimization, and state and federal regulatory reporting. While Manager of Fuel Technical Services, Industrial Coal and Synfuel, I worked with coal suppliers and DESC's power plants to increase fuel and transportation flexibility as well as to maximize the utilization of the Company's assets. In December 2009, I was promoted to General Manager of the Coal and Oil Procurement Department, and in January 2021, I assumed my current position.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to describe the procurement and delivery activities for coal and No. 2 fuel oil used in electric generation for DESC as well as GENCO's Williams Station for the period January 1, 2021, through December 31, 2021 (the "Review Period").

I also discuss changes that have occurred in coal markets since the last annual fuel adjustment hearing and how these changes affected coal procurement during the Review Period. My testimony also describes the procurement and delivery of limestone for our wet scrubbers located at the Wateree and Williams steam plants.

Q. CAN YOU PLEASE DESCRIBE GENCO AND ITS RELATIONSHIP TO DESC?

A. GENCO was incorporated on October 1, 1984, and owns A.M. Williams Electric Generating Station ("Williams Station"). GENCO sells to DESC the entire generation output from Williams Station under a Unit Power Sales Agreement approved by the Federal Energy Regulatory Commission. When I refer to DESC's non-nuclear steam generation plants, I include GENCO.

COAL, NO. 2 FUEL OIL, AND LIMESTONE PURCHASING

Q. CAN YOU SUMMARIZE THE FUEL PROCUREMENT NEEDS AND PURCHASING PRACTICES FOR DESC'S NON-NUCLEAR POWER GENERATION PLANTS.

A. The Fuel Department purchases all coal, No. 2 fuel oil, limestone, and associated transportation for DESC's non-nuclear power generation plants focusing on reliability of supply, conformity with operational and environmental requirements, and reasonable prices.

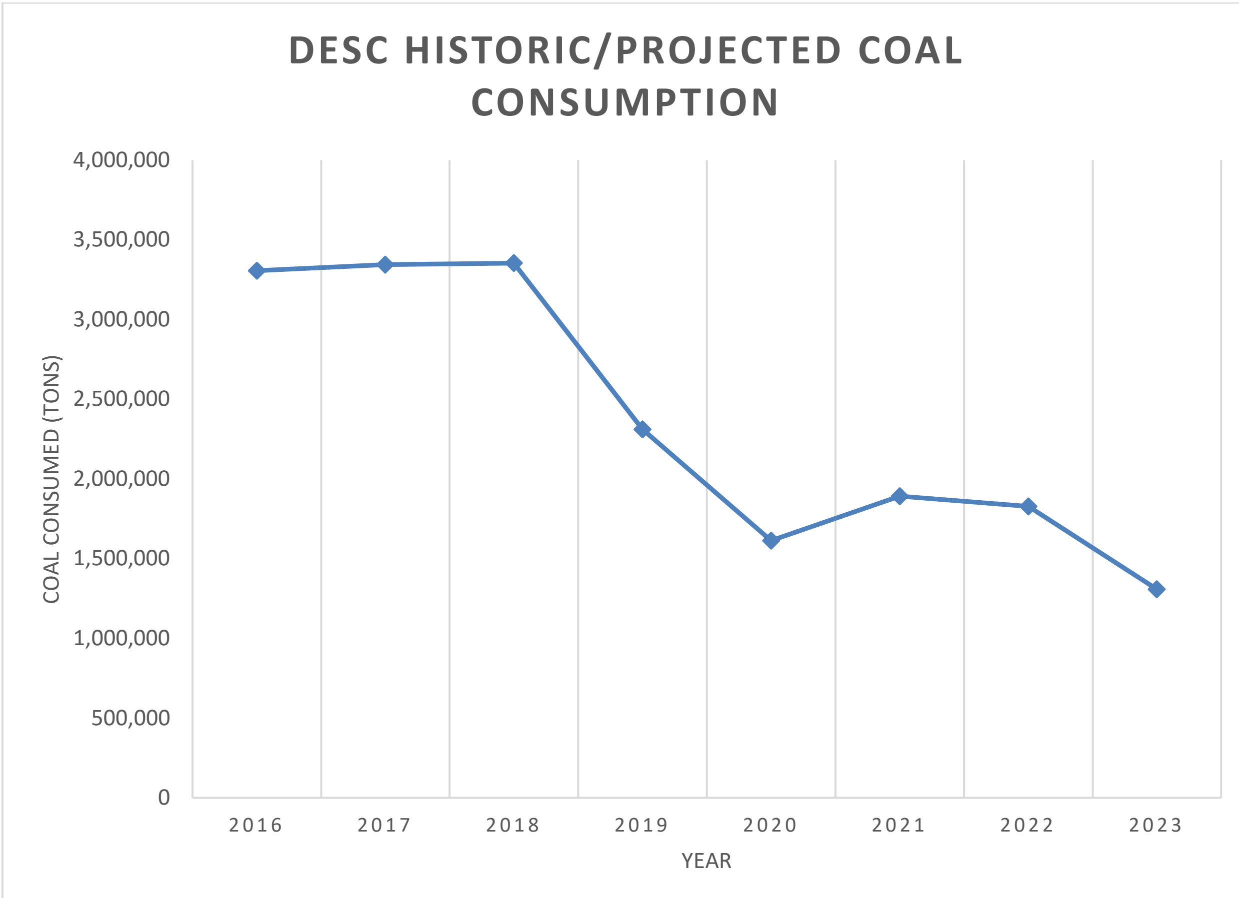
Q. WHAT WAS THE CONSUMPTION RATE FOR COAL IN 2021 AND WHAT DO YOU EXPECT THE CONSUMPTION RATE FOR COAL TO BE IN 2022?

A. In 2021, DESC consumed 1,891,851 tons of coal in the production of electricity for its customers. This amount was 15% higher than the amount of coal consumed in 2020.

The Company projects that its burn rate for coal in 2022 will be approximately 1,827,856 tons. This projected burn rate is based on normal weather, the Company's projections of coal and natural gas prices, and the economic dispatch of units.

The following graph in Figure 1 illustrates the change in coal consumption since 2016 and the predicted consumption through 2023.

Figure 1



Q. HOW DOES THE COMPANY SECURE NECESSARY QUANTITIES OF COAL AT COMPETITIVE PRICES?

A. Coal is procured under long-term (more than one year) and spot purchase (up to one year) agreements to achieve a balance of reliable supplies while maintaining flexibility to react to market changes or short-term system needs. Under historic market conditions, DESC seeks to have long-term purchases represent approximately 60% to 80% of projected annual system demand.

Spot purchases provide a mechanism to manage inventories and react to short-term changes in the marketplace, and generally represent 20% to 40% of projected system demand.

Q. HOW DOES THE COMPANY SECURE NECESSARY QUANTITIES OF NO. 2 FUEL OIL AT COMPETITIVE PRICES?

In contrast to the time variances inherent in coal purchasing contracts, contracts for No. 2 fuel oil are requirements contracts that are competitively solicited every two years. In general terms, pricing is based upon market indices that adjust daily.

Q. WHEN DOES THE COMPANY GO TO THE MARKET FOR COAL AND NO. 2 FUEL AND WHAT INFORMS THAT DECISION?

DESC maintains an active list of qualified suppliers of coal and No. 2 fuel oil. As contracts expire or needs are identified, DESC typically issues solicitations for competitive sealed bids. Responses to these solicitations help to inform our understanding of market demand and prices. Moreover, because the responses to these solicitations often include proposals for coal supplies with specifications different than the requested specifications, these responses also aid our ongoing efforts to ascertain price differences for varying qualities of fuels.

Q. PLEASE SUMMARIZE THE COMPANY'S COAL PURCHASES DURING THE REVIEW PERIOD.

A. The Company took delivery of 1,146,291 tons of coal under long-term agreements and 612,369 tons of coal through spot purchases during the Review Period. Long-term agreements provided 65% of the requirement for the Company's coal-fired stations, while spot purchases accounted for the remaining 35% of DESC's coal receipts during 2021.

In total, DESC received 1,758,660 tons in 2021 in contrast to the 1,429,942 tons received in 2020. This 19% increase shows the impact of current natural gas prices, extended plant maintenance outages at V.C. Summer Nuclear Station and Columbia Energy Center, and the importance of a flexible supply base. This increase in deliveries was also limited by delivery problems experienced in 2021 with the coal supply chain.

Q. FOR 2022, PLEASE EXPLAIN THE COMPANY'S PLANS FOR ADDRESSING ITS NEEDS FOR COAL SUPPLIES UNDER LONG-TERM CONTRACTS AND SPOT PURCHASES.

A. DESC does not anticipate soliciting suppliers of coal for additional long-term contracts in 2022. The Company currently has contracts in place that are projected to meet a balance of 90% of coal supplies through long-term contracts and 10% through short-term contracts in 2022. However, this balance may not be achieved because of market conditions, weather, and operational considerations.

The Company plans to maintain the flexibility to manage its coal inventories and purchase the most competitively priced fuel while remaining mindful that its burn rate has the potential to fluctuate widely due to market conditions and changes in the price of coal or natural gas that may result in imbalances of fuel supply and demand. In sum, the Company will continue to evaluate market conditions carefully in order to purchase coal supplies for our customers at economically reasonable prices while ensuring that the Company's service commitments are reliably and prudently met.

Q. HOW MUCH COAL DOES DESC PLAN TO PURCHASE IN 2022 UNDER LONG-TERM CONTRACTS?

A. DESC currently has long-term contracts with seven suppliers for the delivery of 2,044,980 tons of coal. This quantity represents 90% of DESC's expected total coal receipts for 2022. The coal purchased under these contracts ranges in quality from 12,500 to 13,000 British Thermal Units ("BTU") per pound and from 1.00% to 2.60% sulfur content. These contracts are for an initial period of two years. The amount of coal under contract will vary from year to year, and the contract terms will vary from contract to contract.

During 2022, the Company will continue to carefully evaluate its need for coal in future periods. We currently do not anticipate that DESC will negotiate additional commitments for coal supply for 2022. As coal consumption fluctuates DESC will seek to maintain a reasonable balance between coal supplied under long-term contracts and spot purchases while obtaining coal at reasonable prices and ensuring that the Company's supply requirements are reliably and prudently met.

Q. FOR 2022, PLEASE EXPLAIN THE COMPANY'S CURRENT PLANS FOR ADDRESSING ITS NEEDS FOR COAL SUPPLIES UNDER SHORT-TERM CONTRACTS.

A. The Company currently has spot contracts with two suppliers for the delivery of 212,980 tons of coal. This quantity represents 10% of DESC's expected total coal receipts for 2022.

Currently there is no expectation to return to the spot market for any additional coal purchases. DESC's current purchases given the current forecast is adequate to rebuild inventories while keeping the company out of a higher priced limited availability market. As always, the Company will make additional spot or long-term purchases as needed to ensure enough supply is available for its electricity generation needs at a reasonable price. Acquiring coal supplies in this manner provides DESC with the flexibility necessary to manage its generation assets in the most cost-effective way, which can vary from month to month.

Q. GIVEN THE STATE OF THE DOMESTIC COAL MARKET, WILL SUFFICIENT SUPPLIES OF COAL BE AVAILABLE ON THE SPOT MARKET TO MEET THE COMPANY'S GENERATION NEEDS?

A. With utilities across the country continuing to decommission coal plants and choosing to rely more heavily on natural gas and renewable generation facilities, the overall demand for coal in the domestic market will continue to trend lower. The current availability of spot coal is limited. Production issues caused by shortages in trucking, labor, mining equipment, spare parts and the pandemic will take time to dissipate. The lack of spot coal availability is also exacerbated by the increased export of domestic coal into the international market. Years of underinvestment due to low gas prices, lower demand and lack of capital investor interest has taken its toll. The current market is allowing suppliers to reinvest in equipment and manpower which will allow a more reliably supplied coal market.

Q. HOW DOES DESC ENSURE THAT THE RIGHT QUANTITIES OF FUEL SUPPLIES ARE AVAILABLE TO MEET GENERATION DEMANDS AT ITS NON-NUCLEAR POWER GENERATION FUEL FACILITIES?

A. DESC uses several steps to bring the fuel supply and demand factors together. Fuel usage levels are calculated and forecasted for each of the generating plants. Coal and No. 2 fuel oil inventories are then validated, and contract quantities are summed and compared against projected system usage to determine needs going forward. Armed with this information, the Fuel Department carefully evaluates the Company's coal requirements and determines whether transportation options under current contracts, spot purchases, or additional long-term agreements are appropriate. Through this process, DESC has been successful in leveraging long-term and short-term coal purchases to achieve reasonable purchase prices while ensuring the reliability of coal supplies necessary to support system needs.

No. 2 fuel oil is purchased to ensure adequate back up to natural gas for DESC's intermediate and peaking generators. Typically, fuel storage tanks are filled going into peak usage periods.

Q. HOW DOES THE COMPANY DETERMINE A "REASONABLE PRICE" FOR COAL AND NO. 2 FUEL OIL PURCHASES?

A. The Fuel Department works diligently to achieve an optimization between adequate fuel supplies of acceptable quality at reasonable purchase prices. The ultimate value of the delivered fuel—coal or No. 2 fuel oil—is determined by the actual delivered cost per Million British Thermal Units ("MMBTU"), accounting for any fuel impacts in the operation of our generating plants.

Market prices fluctuate due to such things as seasonality, political turmoil, national weather trends, and domestic/international supply/demand imbalances. DESC continuously evaluates factors that impact prices and employing contract strategies such as predetermined price adjustments and quarterly adjustments to mitigate the effect market conditions have on coal contracts. Market publications, indices, industry solicitations, trade associations, and interacting with market participants are some of the sources and methods that we use to stay abreast of market trends and conditions.

Q. HOW DOES THE COMPANY MANAGE COAL INVENTORIES TO ENSURE RELIABILITY AND AVAILABILITY?

A. To maintain adequate supply at its coal-fired generating facilities, the Company continuously manages inventories using long-term contracts, spot market purchases, and transportation options. The Company used these tools in support of its efforts to maintain an inventory of approximately 680,125 tons of coal during the Review Period based on the average of each of 12 months' ending inventories to support anticipated consumption during the Review Period and to maintain enough coal to run each coal unit at full capacity for approximately 45 days.

This methodology allows for an inventory of more than 680,125 tons at the beginning of high demand periods and less than 680,125 tons entering the milder months. This targeted inventory level aids in protecting DESC and its customers against lack of coal availability as well as against production and delivery problems that may arise from time to time. The coal inventory is also an immediately available resource to meet our supply needs when short-term market prices are unfavorable, natural gas availability issues arise, or a lack of solar generation occurs. A crucial aspect of the Company's inventory management is balancing its short-term needs against long-term requirements and expected future operating conditions.

Q. CAN YOU PROVIDE AN OVERVIEW OF TRANSPORTATION SERVICES DURING THE REVIEW PERIOD?

A. In 2021, CSX Transportation, Inc. ("CSX") remained the primary rail transporter of coal for DESC. The CSX contract rates were subject to cost of diesel adjustments and will remain under the current contract until September 30, 2022. Renegotiation of the current contract will commence in the upcoming summer, meanwhile DESC is comparing and evaluating its viable options for transporting the coal it needs to operate reliably at market prices.

During the Review Period DESC experienced rail delays that lasted for an extended period of time. These delays stemmed from an increased need for transportation services due to the emergence from the COVID 19 economic slowdown, a lack of qualified rail crews to move freight, and increased natural gas prices both here and abroad which increased the need for coal around the nation. During the months of November, December, and January CSX has pointed to increases in the number of crews negatively impacted by quarantines due to the virus. As a result of the challenges experienced by CSX, DESC altered its dispatch strategies to ensure that its coal inventory for the review period and forecast period was sufficient for reliable operations.

DESC also entered a new agreement with Norfolk Southern ("NS") for rail transport beginning on January 1, 2022. The Company entered this agreement in order to offer additional transport capacity to Wateree Station. The use of the NS at Wateree will provide DESC the opportunity to rebuild system coal inventories in a quicker fashion than the reliance on just one transportation provider.

Q. DOES DESC HAVE ACCESS TO INTERNATIONAL COAL SUPPLIES?

A. Yes. Although the Company did not receive any deliveries of international coal during the Review Period, DESC has the capability, through existing utility-business partnerships, of obtaining and transporting imported coal to its coal generation facilities on a spot or as-needed basis when availability allows and prices for international coal are competitive with domestically produced coal.

During the Review Period, DESC solicited for coal twice to include international coals. In the responses to those solicitations no offers were made for the delivery of internationally sourced coal.

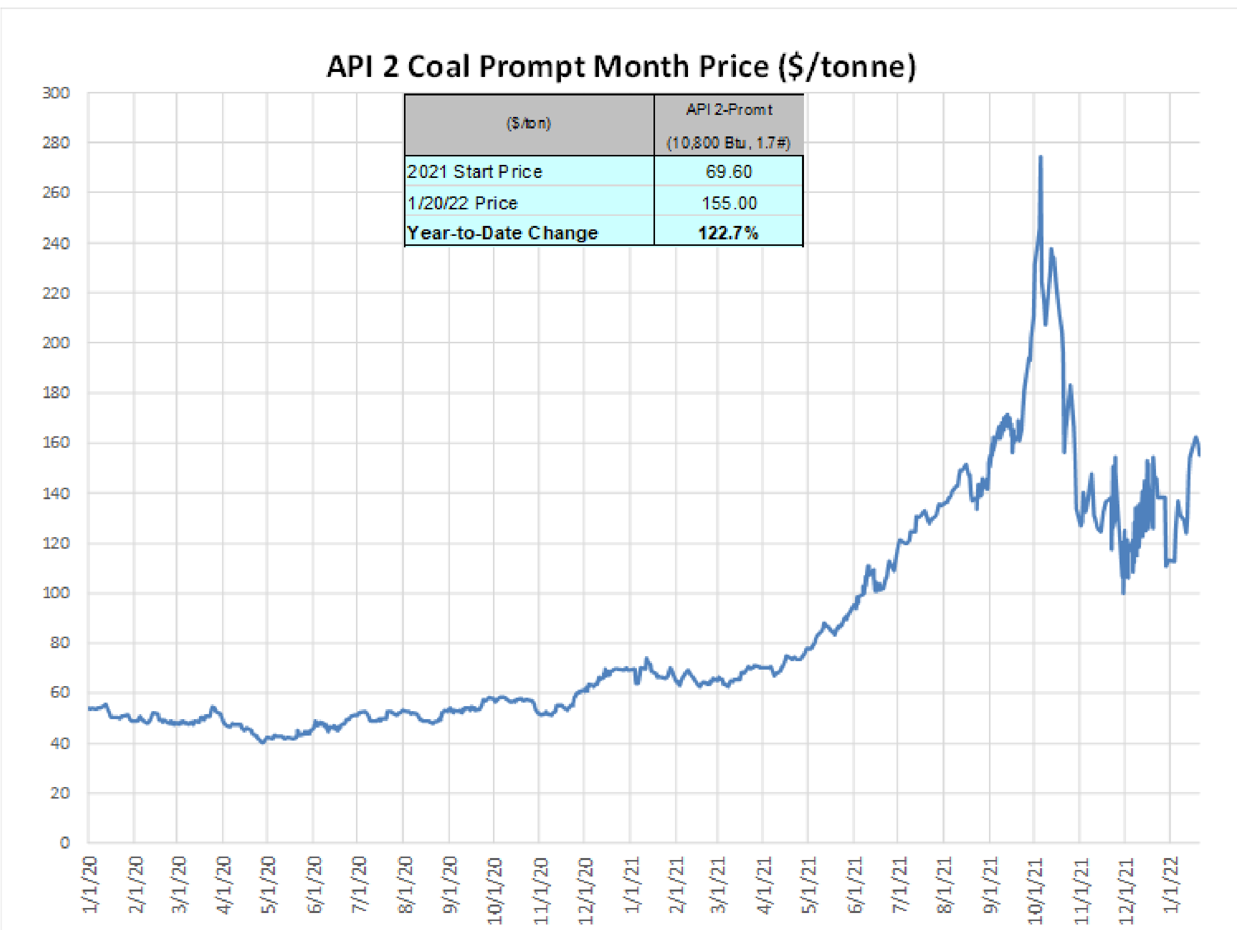
Q. PLEASE DESCRIBE THE STATE OF THE INTERNATIONAL COAL MARKET IN WHICH DESC PARTICIPATES AND ITS CURRENT PLANS REGARDING IMPORT COAL.

A. International coal prices have risen over the Review Period. The market for coal on the API 2 index began the year at $69.60 per tonne[1] and ended the year at $113.00 per tonne. Figure 2 below shows the API 2 index values for both 2020 & 2021 and reflects that coal prices were consistent until May of 2021. The Company will continue to monitor the market for use of international coal in DESC's system,

[1] A "tonne" is defined as a metric ton, which is 10% more than a U.S. standard ton.

but the current lack of availability along with a more competitive domestic market precludes its use at this time. The demand for all coal (Metalurgical, NAPP, ILB) in the international market from U.S. ports ended 2021 in greater demand than in 2020. As the international pandemic recovery developed, many countries found themselves short of energy resources and were forced to shut down coal fired plants due to conservation or for depleted inventory.

Figure 2



DESC will continue to monitor and remain informed of opportunities to purchase international coal as part of its ongoing effort to reduce fuel costs for both

DESC and its customers and to ensure that an adequate supply of coal is available to meet its generation needs.

Q. WHAT WERE DESC'S DELIVERED COAL COSTS FOR THE REVIEW PERIOD?

A. DESC's average delivered cost in dollars per MMBTU by month for coal purchased for steam plants during the Review Period is set forth in Table 1.

Table 1

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
$3.01	$3.43	$3.15	$3.34	$3.19	$3.24	$3.18	$3.23	$3.21	$3.25	$3.18	$3.44

Q. WHAT CHANGES DOES THE COMPANY ANTICIPATE IN THE COAL MARKET FOR THE 2022 FORECASTED PERIOD?

A. DESC's coal prices for the forecasted period are expected to fluctuate around current levels as represented in the forecast due to the lack of anticipated need for spot coal. Over the past 12 months, the price per ton of Central Appalachian ("CAPP") coal has fluctuated. Prices began the year at $50.75 per ton and ended the Review Period at $92.00 per ton. Spot coal prices are currently in the $90's / ton range with very limited availability.

The CAPP coal market will continue to be impacted by dwindling demand caused by coal plant closures in the long term but currently is trying to ramp up to meet demand. This demand, driven by the need for energy around the world, will continue to impact pricing and availability for the foreseeable future. Prior to the middle of 2021, the price for coal was not sufficient for recapitalization of the producing and delivery infrastructure. This under-capitalization was made worse by diminished export markets, increased mining expenses, coal supplier bankruptcies, a severe lack of capital resources, and low-cost natural gas. The current prices for thermal CAPP coal are sufficient to attract investment in the infrastructure needed for most remaining coal producers to produce our typical specification. In order for producers to justify the expense of such capitalization, longer term contracts will need to be negotiated.

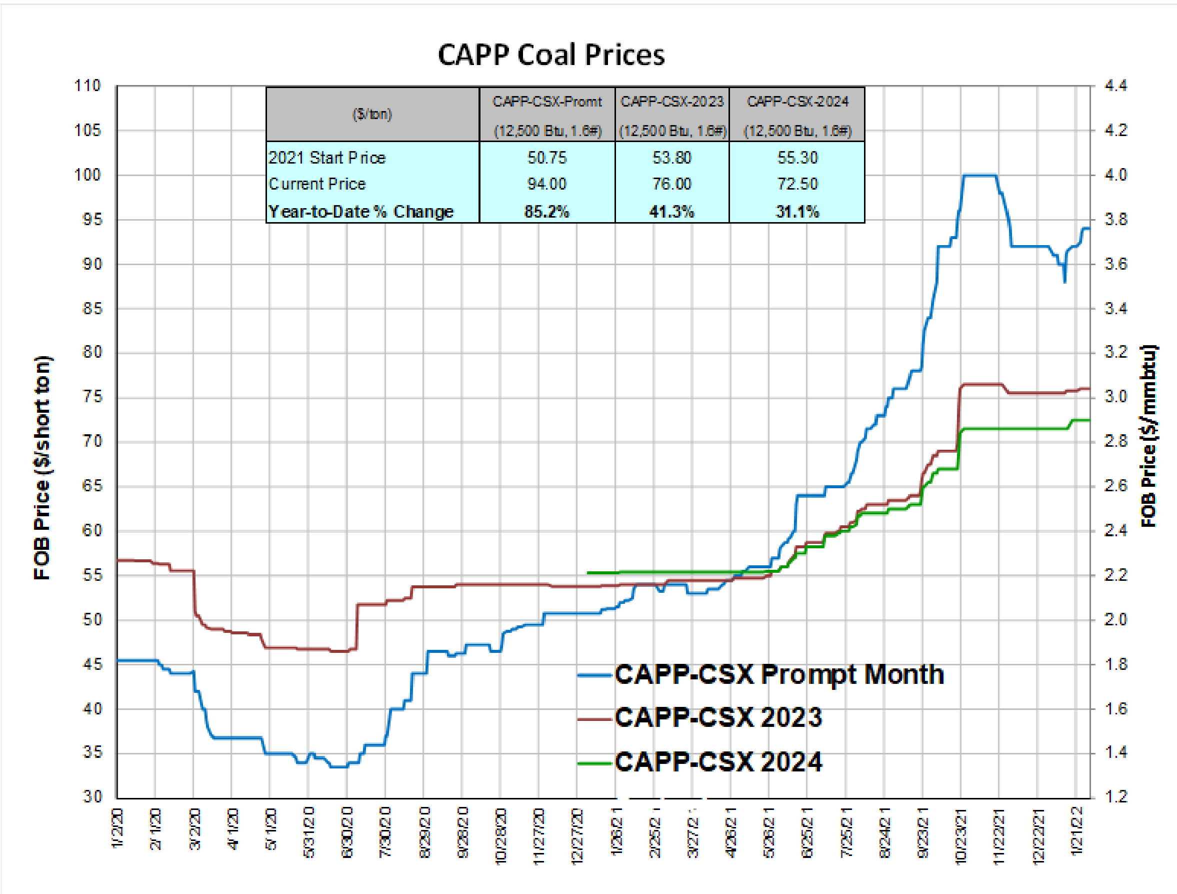
Current rates of inflation, fuel cost increases, the availability of qualified miners, the unavailability of spare parts, and continuing Covid quarantines will continue to keep coal production costs elevated during 2022. Most producers have benefited from the increased market prices which will allow them to invest in their business.

As a result of these upward pressures, the Company expects coal prices will remain above the level seen in recent years until demand decreases or supply increases above demand. Current production is not adequate to meet near term demand.

Included for reference in Figure 3 below are historical coal prices back to January 2020 and the forecasted price for 2022, 2023 and 2024. This forward price curve represents the forecasted prices in relation to the Central Appalachian

("CAPP") coal market where DESC purchases a majority of its coal. The last value indicated on the graph is for January 2022.

Figure 3



Q. WHAT ADDITIONAL STEPS ARE THE COMPANY TAKING TO REDUCE FUEL-RELATED EXPENSES?

A. DESC continuously tries to reduce its fuel costs by purchasing coal of lower quality where practicable and acceptable to a coal-burning plant. During 2021, DESC elected to take delivery of coals purchased mainly from the Central

Appalachia region in order to service our base contracts. DESC also conducted a test burn of Northern Appalachian ("NAPP") coal in connection to a longer term, cost competitive opportunity. This test burn resulted in a competitively priced contract which will give DESC the option of shipping the coal on either the CSX or NS rail lines. DESC will continue to explore ways to reduce fuel costs while maintaining reliability and managing quality.

Q. WHAT HAS BEEN THE RECENT PRICING TREND IN THE NO. 2 FUEL OIL INDUSTRY?

A. Delivered No. 2 fuel oil average monthly prices during the Review Period ranged from a high of $18.52 per MMBTU in October to a low of $12.01 per MMBTU in January. With the vast shale resources that have come online in the U.S., the cost of fuel oil is expected to remain stable but still susceptible to international price pressures.

Set forth below is Table 2, which shows the average system delivered No. 2 fuel oil prices in dollars per MMBTU for the Review Period that was purchased for steam plants, gas turbines, and combined cycle units. For the months of May and December, the Company did not purchase any No. 2 fuel oil.

Table 2

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
$12.01	$14.12	$14.55	$14.92	$0.00	$15.42	$15.63	$14.86	$16.06	$18.52	$18.03	$0.00

Q. WHAT RESPONSIBILITIES DOES THE FUEL DEPARTMENT HAVE WITH RESPECT TO SO_2 AND NO_X ALLOWANCES?

A. The Fuel Department purchases or trades EPA sulfur dioxide ("SO_2") and nitrogen oxides ("NO_x") emission allowances as needed by DESC to compensate for its SO_2 emissions. However, DESC currently is emitting less than its SO_2 and NO_x emission allowances allocated to it by the EPA. For this reason, the Company was not required to purchase SO_2 and NO_x emission allowances. The Company also does not anticipate having to buy any SO_2 or NO_x emission allowances in 2022.

Q. PLEASE EXPLAIN THE FUEL DEPARTMENT'S ACTIVITIES RELATED TO THE PROCUREMENT OF ENVIRONMENTAL REAGENTS FOR DESC'S POWER GENERATION FACILITIES.

A. The Fuel Department is responsible for securing adequate and reliable supplies of environmental reagents for the operation of various pollution control systems at the Company's power generation facilities. This includes the use of limestone for the wet flue gas desulphurization for SO_2 and mercury control scrubbers at the Company's Wateree and Williams Stations, pebble lime for the dry flue gas desulphurization scrubbers at Cope Station for SO_2 and mercury control, and ammonia products (both anhydrous and aqueous ammonia) for the Selective Catalytic Reduction ("SCR") systems at Wateree, Williams, Cope, Jasper, and Columbia Energy Center for NO_x control.

With respect to limestone, there continues to be limited local suppliers for reagent quality products, but a new quarry in Georgetown came online in 2021. The Company acquired all its supplies of limestone from a single source during the Review Period under a long-term contract, which has proven to be effective and market priced. The limestone is delivered to Williams and Wateree Stations by truck since the current source of supply is located near both of the plants.

Pebble lime for Cope Station was also acquired from a single source during the Review Period under a long-term contract. Pebble lime is a specialty product with no local production in South Carolina. Pebble lime from Cope is currently produced in Alabama, railed to a transload facility in Saint Matthews, South Carolina, and delivered to Cope Station by truck. The ability of the transload facility to provide significant local inventory of pebble lime provides significant flexibility for DESC to continue economically opportunistic operation of Cope Station on natural gas or coal.

Ammonia products for the Company's SCR systems were also acquired from a single source during the Review Period under a long-term contract. Ammonia products, both anhydrous and aqueous, are trucked to the Company's facilities from regional terminals.

In summary, the Company continues to evaluate supply and transportation options designed to ensure adequate and reliable supplies of environmental reagents to the Company's power generation facilities.

CONCLUSION

Q. WHAT REQUEST DOES DESC MAKE OF THE COMMISSION IN THIS PROCEEDING?

A. The Fuel Department has made reasonable and prudent efforts to obtain reliable, high quality supplies of coal, No. 2 fuel oil, lime, ammonia, and limestone and associated transportation at the lowest possible cost to DESC's customers. Therefore, on behalf of DESC, I respectfully request that the Commission find that the Company's fuel purchasing practices were reasonable and prudent for the Review Period.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.